

Application No.: 10/696,048  
Docket No.: PE0649 US DIV6

### Remarks

#### Status of the Application

Claims 12-22 are pending. No claims are amended or canceled.

New Claims 19-22 have been added and recite the same limitations as 12-15, except they are narrower. Because the claims are narrower, a new search should not be required. New Claims 19-22 do not claim 5-methyl-2-(2',4'-difluorophenyl)-pyridine, which remains claimed in claims 12-16. These claims are added to bring at least some of the case to allowance, as there is no overlap between these structures and the allegations made in connection with the Hamprecht patent.

A Notice of Appeal accompanies this response. Reconsideration is respectfully requested based on the following.

#### Prima Facie Obviousness Not Established

Claims 16-18 stand rejected under 35 U.S.C. § 103(a) as allegedly obvious over U.S. Patent No. 6,169,184 ("the Hamprecht patent") in view U.S. Patent No. 6,894,307 ("the Forrest patent"), and Polymer Reprints 41, 770-771 (2000) ("the Djurovich article"). Applicants traverse the rejection because the Office has not established that the claimed invention is *prima facie* obvious.

The MPEP requires that "[w]ith regard to rejections under 35 U.S.C. 103, the examiner must provide evidence which as a whole shows that the legal determination sought to be proved (i.e., the reference teachings establish a *prima facie* case of obviousness) is more probable than not." MPEP §2142 (emphasis added).

Applicants note the core teachings of the three references: (a) the Hamprecht patent presents molecular structures from disclosed synthetic pathways with no teaching or suggestion of utility in OLED layers or devices but rather to be used as *herbicide intermediates*<sup>1</sup> (column 1, lines 28-30); (b) Djurovich, teaching that a particular phenylpyridine (that is not the claimed compound) is useful in polymer blend (PVD-PBD) LEDs; and (c) Forrest teaching that a

<sup>1</sup> For all claims except Claim 12 and new Claim 19, Applicants submit that the Hamprecht patent is nonanalogous art. To be analogous art, a reference must come from the same area of art or one of which a person skilled in the art reasonably would be expected to be aware. One in the electronic device, or even Ir(III) coordination, arts cannot be expected to look to herbicide art.

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phenylpyridine (that is not the claimed compound) is a sensitizer/intersystem crossing (ISC) agent that improves efficiency of a fluorescent dye and may be substituted with alkyl and/or aryl groups to promote steric stability. Short of hindsight, what apparent motivation for combining the three references to arrive at the subject matter set forth in claims 16-18 exists?

The claimed compound is not found in any of the three cited references. Thus, even if one were to combine the cited art, no instantly claimed invention would be derived. For example, the Office Action asserts that one would pick 5-methyl-2-(2',4'-difluorophenyl)-pyridine from the myriad other possibilities in Formula I of the Hamprecht patent. Not only is this compound not specifically taught by the reference, there is simply no direction for one skilled in the art to select this particular (hypothetical) herbicide compound. "The fact that a claimed species or subgenus is encompassed by a prior art genus is **not sufficient by itself to establish a *prima facie* case of obviousness.**" MPEP §2144.08 (emphasis added). The overwhelming majority of the Hamprecht patent's compounds do not have any relevance to the claimed structure.

Additionally, the Hamprecht patent does not suggest use (or even ability) of *any of its compounds* as a starting material for Ir(III) complexes. Under the totality of the facts and all of the evidence, no support exists for a conclusion that the claimed invention would have been obvious to one of ordinary skill in the art at the time the invention was made.

Neither the Djurovich article nor the Forrest patent suggest that 5-methyl-2-(2',4'-difluorophenyl)-pyridine would be an appropriate starting material or precursor for the claimed device. The Forrest patent is limited to alkyl substituents for steric viability, with no suggestion that halogen substituents would be effective or desirable. The Djurovich article does not teach alkyl substituents on either ring and teaches no substituents on the pyridine ring. Thus, the general substitution patterns taught by the cited art to be useful in their electronic devices does not match that found in the compound recited in the instant claims.

The Examiner has also failed to show any motivation in the references to combine the Forrest patent and the Djurovich article with the Hamprecht patent. There must be some suggestion or motivation to one of ordinary skill in the art to combine the reference teachings to establish a *prima facie* case of obviousness. See MPEP §2143. Motivation to combine prior art

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references may exist in the nature of the problem to be solved or the knowledge of one of ordinary skill in the art, and Applicants submit that neither motivation exists here.

For the foregoing reasons, a *prima facie* case of obviousness was never established. The rejection for alleged obviousness of claims 16-18 is improper and should be withdrawn.

Prima Facie Obviousness Not Established

Claims 12-15 stand rejected under 35 U.S.C. § 103(a) as allegedly obvious over of the Hamprecht patent, the Forrest patent, and the Djurovich article, further in view of Inorganic Chemistry 30, 1685-87 (1991) ("the Dedeian article"). Applicants traverse the rejection because the Office has not established that the claimed invention is *prima facie* obvious.

Claims 16-18, discussed above, are within the scope of Claims 12-15, and thus all of the points discussed above apply here as well. The additional Dedeian article does not even cover any of the claimed compounds. Nor does it cure any of the defects concerning the combination of the art, such as by supplying a teaching of the usefulness of herbicides in electronic devices for example. The rejection is improper.

Conclusion

Applicants respectfully submit that the obviousness rejections should not be reapplied to the pending claims. Applicant further respectfully submits that the pending claims are in condition for allowance, and earnestly solicits a notice of allowance for claims 12-22.

Should the Examiner have questions about the application or the contents of this paper, the Examiner is invited to call the undersigned at the telephone number listed below.

Respectfully submitted,



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